Boreoiulus tenuis (Bigler).

Monacobates tenuis, Bigler, 1913, Rev. Suisse Zool. Geneva, xxi. p. 750.

It should be added that Brölemann places the form described by Am Stein in 1857 as Blaniulus fuscus, known to us recently as Amsteinia fuscus, in the genus Proteroiulus, Silvestri.

S.E. Agricultural College, Wye, Kent, 16th November, 1921.

Some References.

Brade-Birks, Hilda K., and S. Graham Brade-Birks. March 1919 "Notes on Myriapoda.—XVI. Some Observations on Nomencla-

ture. Ann. & Mag. Nat. Hist. (9) iii, pp. 253-256, 1919 b. "Notes on Myriapoda.—XVII. Pour réhabiliter quelques anciens noms spécifiques." Bull. Soc. zool. France, lxiv.

рр. 63-66.

poda and Diplopoda for the latter Part of 1918." Lancs. and Ches. Nat. xii. pp. 101-106.

Brölemann, Henry W. 1919. (Notes on Brade-Birks, 1919 b, ante.) Bull. Soc. zool. France, lxiv. pp. 66-68.

. 1921. "Clef dichotomique des divisions et des espèces de la famille des Blaniulidæ (Myriap.)." Arch. Zool. expér. et gén.

lx., Notes et revie, no. I, pp. 1-10. Снамвекых, Ralph V. 30th June, 1921. "The Julidæ and Isobatidæ in North America." Proc. Biol. Soc. Washington, xxxiv. pp. 81-84.

XIII.—On the Spiders captured by Mr. C. S. Elton at Spitsbergen and Bear Island in 1921. Results of the Oxford University Expedition to Spitsbergen.—No. 5. By A. RANDELL JACKSON.

THE following eight species were obtained by Mr. C. S. Elton. Seven of these had been recorded previously from these regions, the eighth appears to be new to science. One of the seven seems never to have been figured, so I add illustrations to those of the new species.

The Expedition obtained specimens, in Bear Island from June 14th to June 22nd inclusive, and in Spitsbergen from

June 26th to August 11th.

1. Leptyphantes sobrius, Thor. (1).

Both males and females in Mr. Elton's collection, as well as numbers of immature examples. L. latebricola, L. K. (3), which was obtained in Nova Zembla and Siberia, is possibly the same species. König (10) gave additional descriptions of the female, but the sexual organs were not figured, nor does there seem to be any figure or description of the palpus.

The paracymbium is of a very distinct shape, showing two very prominent upwardly projecting processes between the apex and base. The lamella characteristica issues from behind the paracymbium; it divides into two limbs, one above The upper one consists of a slender, slightly curved, pointed, chitinous rod, from the lower side of which springs a glistening white feathery fringe, the termination of which forms a plume. The lower part is a semitransparent fragile membranous plate, ending in a dark, strongly chitinized, spine-like point. The tibia bears above six or eight bristles about as long as the diameter of the joint. There are several long hairs on the patella, which also bears on a slight eminence on the upper side near the distal end a long strong seta several times as long as the joint. The tarsus bears a blunt lobe on the outer side near the base. It is drawn out into a point behind at the inner side.

Length of articles:—patella ·15 mm., tibia ·15 mm., tarsus

·57 mm.

The femora of the legs are all unarmed, except the first pair, each of which has a spine on its upper third on the inner side. The first and second metatarsi each show a single spine above in the upper third. The third and fourth metatarsi, in addition to this, show one at the same level beneath and one a little lower on the outer side, three in all.

Colour and markings as in the female (1) and (10).

The epigyne is fairly characteristic, but has a strong general resemblance to that of several other species of the genus.

Advent Bay, Klaas Billen, Prince Charles Forcland.

2. Hilaira glacialis, Thor. (1).

Four adult males and one adult female. Sexual organs figured by Kulczynski (9). Klaas Billen, Advent Bay. This species occurs also in Siberia.

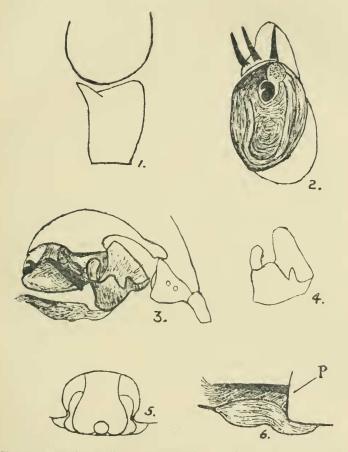


Fig. 1.—Micaria eltonii, sp. n. Male palpus: left tibia and part of tarsus from above.

Fig. 2.—Micaria ellonii, sp. n. Male palpus: paipal organs and tarsal spines of left side, from below.

Fig. 3.—Leptuphantes sobrius, Thor. Left palpus of male, from outer side.

Fig. 4.—Leptyphantes sobrius, Thor. Left paracymbium from outer side and slightly from behind.

Fig. 5.—Leptyphantes sobrius, Thor. Epigyne of female from below. Fig. 6.—Leptyphantes sobrius, Thor. Lamella characteristica of left side from below. P denotes paracymbium.

3. Typhochrestus spetsbergensis, Thor. (1).

Six adult males, five adult females, and a number of

immature examples.

Klaas Billen, Prince Charles Foreland, Gips Valley. Also from Siberia, New Siberian islands (9); probably Greenland.

4. Erigone psychrophila, Thor. (1).

Two males only at Ebba Valley.

Occurs also in Siberia and the New Siberian Islands (9) and Franz Joseph Land.

5. Erigone arctica, White.

Four males and two females at Klaas Billen.

Several of the immature specimens probably belong to this species.

Of a very wide range, including the British Isles, in many

parts of which it is common.

6. Erigone tirolensis, L. K.

A female from Klaas Billen, and another from Liefde Bay. In the absence of the male the determination is not quite certain; but I feel pretty sure, and the male has already occurred in Spitsbergen (7).

E. tirolensis occurs on the Grampians and Ben Nevis at high altitudes (11); also in Siberia and Nova Zembla (3),

Tyrol, Switzerland, and Tatra.

7. Coryphœus holmgrenii, Thor. (1).

One adult male and seven adult females from Bear Island. This is certainly the C. mendiens, L. Koch (3), of British anthors, and almost certainly Lophonma nivicola, Strand (6).

Siberia, Nova Zembla (3), the north-east coast of Siberia (8), the Scottish mountains at high altitudes (11).

Mr. Elton did not find this species at Spitsbergen. It was the only one found at Bear Island.

8. Micaria eltonii, sp. n.

One adult male at Klaas Billen on August 9th, 1921.

This appears to be undescribed, and I have great pleasure in giving it Mr. Elton's name. I must, however, state that

at least four species of Micaria have been described from the Arctic regions; these are:—M. humilis, Kulcz. (4), M. centrocnemis, Kulcz. (4), M. centrocnemis, Kulcz. (4), M. centrocnemis, Kulcz. (4), M. centrocnemis, Kulcz. (5), M. centrocnemis, Kulcz. (5), M. centrocnemis, Kulcz. (5), M. centrocnemis, p. 175), and M. forwata, Strand (5)—the two former from Siberia and the two latter from northern Norway. Of M. labradoriensis, Marx, from Labrador, I have no information beyond its existence.

M. eltonii may turn out to be the male of any of these, the first four of which are only known in the female sex; but from the descriptions of these I should think it quite unlikely. The proper course seems to be to describe it now.

This is the first spider not an Argiopid to be found in Spitsbergen. It belongs, of course, to the family Clubionidæ.

Facies.—Resembles a large specimen of M. pulicaria, but has no white abdominal bands or spots. The specimen shows a few thick white hairs on each side of the cephalothorax near its base, but these are not numerous enough to be seen without a microscope.

Length.—Cephalothorax 1.5 mm., abdomen 2.1 mm., total

3.6 mm.

Cephalothorax.—Smooth, dark reddish brown, mottled and striped with deeper brown markings radiating from a dark wedge-shaped mark at the thoracic juncture. Covered with very fine white pubescence, and showing the aforesaid patches of thickened white hairs towards its posterior border.

Sternum.-Dark red brown, almost black, covered with

long fine hairs and without squames.

Eyes.—Anterior row strongly procurved—i. e., concave in front. Centrals the smallest, each more than a diameter apart and less than a diameter from the adjacent laterals.

Posterior row slightly procurved. Eyes subequal or centrals slightly less than laterals, all elliptical in shape. Centrals obliquely placed, more than a diameter apart and about the same distance from the laterals.

Falces.—Dark red-brown; not rugose, bearing no squames,

covered with long bristly hairs.

Palpi.—Maxillæ dark red-brown, with a whitish patch at the tip on the inner side.

Femur, patella, and tibia yellow-brown, marbled with

darker brown, and darker above than below.

Tarsus dark brown, almost black, paler at the tip. It bears on its under surface between the palpal organs and the tip three long strong spines, the one present in some other species on the outer side being absent; all these articles are covered with long simple hairs.

The patella is '25 mm. long and '15 mm. broad from side

to side, the former dimension measured laterally, the latter

from above.

The tibia measures '22 mm. long and '13 mm. broad. At its distal end on the outer side it bears a subtriangular, pointed, semitransparent apophysis projecting obliquely forwards and outwards, and measuring '045 mm. as seen from above.

The palpal organs are rounded and convex. They show a small hook-like process between the middle and the apex, the tip of the hook being directed inwards. On the inner side near the apex is a corneous process, ending in a sharp point projecting forwards and outwards. A little white glistening membrane occupies the extreme apex of the palpal organs.

Legs.—Coxæ and trochanters yellow-brown with dark brown markings. Femora dark brown, with the exception of the basal halves of the four anterior ones, which are yellow-

brown.

Femora i. and ii. each bear two spines above, one near the base and one near apex at the inner side.

Femur iii. also bears two spines, one on the distal and the

other on the proximal third.

Femur iv. only shows the proximal spine. All the remaining articles are dark brown.

Tibiæ and metararsi i. and ii. clothed beneath with long

hairs and bearing no long spines.

Tibiæ and metatarsi iii. and iv. each bear several pairs of long spines below; these are more or less concealed among the long hairs clothing the part, and are difficult to count.

Tarsi all scopulate, the four anteriors much more thickly

so than the four posteriors.

Abdomen dark brown, almost black, sparsely covered with scattered, thick, iridescent hairs which do not form a pattern. There are faint indications of a pair of yellow-brown spots on the anterior third, followed by several chevron markings.

Spinners.-Upper spinners yellow-brown, lower spinners

almost black.

The following is the analysis of Mr. Elton's total catch:—

Adult specimens	 43
Immature (probably L. sobria)	 16
Immature and unrecognizable	 33
	-
Total	 92

There was no indication that any of the immature specimens belonged to any species not included in the above list, but, of course, it is quite impossible to be sure.

Two species have been recorded from Spitsbergen which Mr. Elton did not meet; these are:

Leptyphantes hyperboreus, Strand (10) .- An adult male and an immature female.

Micryphantes fuscipalpis, C. L. K.—One female.

This is an extremely critical genus, and the identification is very doubtful. It is far more likely to be M. nigripes, Sim., or some other form. It is absolutely necessary to have males in order to be sure of the species.

References.

- (1) THORELL, T. "Om Arach, fr. Spetsbergen och Beeren-Eiland." (Efversigt, af, Kongl, Vet.-Akad, Förh, Stockholm (1871).
- (2) Pickard-Cambridge, O. "On some new and little-known Spiders from the Arctic Regions." Ann. & Mag. Nat. Hist. (1877).
- (3) Kocu, L. "Arach. aus Sibirien und Novaja Semlja." An die Königl, Schwed, Akad, de Wissen, (1878).
- (4) KULCZYNSKI, W. Aran, in Camtschad, a Dre B. Dybowski col-
- lectæ. Cracow (1885).

 (5) STRAND, E. Zur Kenntniss der Arachniden Norwegens (1900).

 (6) —. "Therid, aus den Nörd Norwegen." Archiv, for Mathemat.
- og Naturvid, B. xxiv, no. 2 (1901).
 (7) KULCZYNSKI, W. "Zool. Ergeb. der Russ. Exped. nach Spitzbergen." Kaiserlich Akad, der Wissen, St. Petersburg (1902).
- (8) Aran, in Terra Tshuktshorum a cel Podhorski lect. Frag. Arachnolog. v. (1907).
- -. Aran. et Ocibat. exped. Ross. in Insul. Novo-Sibiricus. St. Petersburg (1908).
- (10) König, Alex, Avifauna Spitzbergensis. Bonn (1911). (Spider part written by E. Strand.)
- (11) Jackson, A. R. "Contrib. to the Spider Fauna of Scotland." Proc. Roy. Phys. Soc. of Edinburgh (1914).

XIV .- Note on the Genus Tragosia, Gray. By ARTHUR DENDY, D.Sc., F.R.S., Professor of Zoology in the University of London (King's College).

THE genus Tragosia was proposed by Gray [1867] with T. infundibuliformis as its type-species. This species is the Isodictya infundibuliformis of Bowerbank [1866, 1874] and the Halichondria infundibuliformis of Fleming [1828] and Johnston [1842]. Perhaps this is as far as it is safe to go in tracing back the synonymy, but Johnston expresses